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WISCONSIN FARM REPORTER

November 21, 2019 - Vol. 19, No. 21

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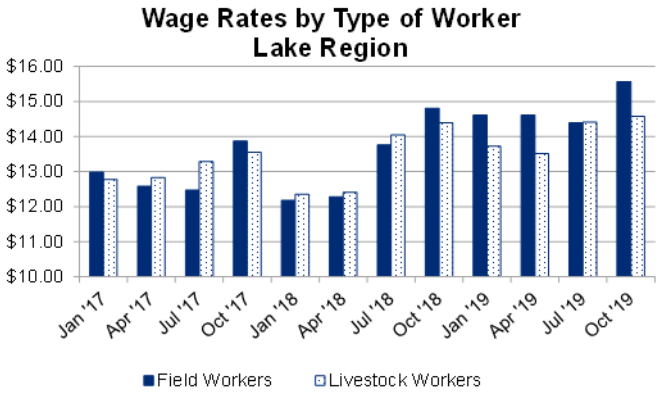
The Wisconsin Farm Reporter *is compiled from data and reports released by the USDA, National Agricultural Statistics Service (NASS). All NASS data and reports are available free at www.nass.usda.gov*

Farm Labor

Lake Region

There were 66,000 workers hired directly by farms in the Lake Region (Michigan, Minnesota, and Wisconsin) during the reference week of July 7-13, 2019. Farm operators paid their hired workers an average wage rate of $15.05 per hour, up $0.56 from July 2018. The number of hours worked averaged 40.5 for hired workers during the reference week, compared with 39.3 hours in July 2018.

During the reference week of October 6-12, 2019, there were 68,000 workers hired directly by farms in the Lake Region (Michigan, Minnesota, and Wisconsin). Farm operators paid their hired workers an average wage rate of $15.64 per hour during the October 2019 reference week, up $0.50 from October 2018. The number of hours worked averaged 41.0 for hired workers during the reference week, up from 37.8 hours in October 2018.



United States

There were 809,000 workers hired directly by farm operators on the Nation's farms and ranches during the week of October 6-12, 2019, up 3 percent from the October 2018 reference week. Workers hired directly by farm operators numbered 802,000 during the week of July 7-13, 2019, down 5 percent from the July 2018 reference week.

Farm operators paid their hired workers an average gross wage of $15.02 per hour during the October 2019 reference week, up 4 percent from the October 2018 reference week. Field workers received an average of $14.38 per hour, up 5 percent. Livestock workers earned $13.77 per hour, up 3 percent. The field and livestock worker combined gross wage rate, at $14.21 per hour, was up 4 percent from the 2018 reference week. Hired laborers worked an average of 42.5 hours during the October 2019 reference week, up 2 percent from the hours worked during the October 2018 reference week.

Farm operators paid their hired workers an average gross wage of $14.91 per hour during the July 2019 reference week, up 4 percent from the July 2018 reference week. Field workers received an average of $14.19 per hour, up 4 percent, while livestock workers earned $13.79 per hour, up 4 percent from a year earlier. The field and livestock worker combined gross wage rate, at $14.08 per hour, was up 4 percent from the July 2018 reference week. Hired laborers worked an average of 41.7 hours during the July 2019 reference week, up 1 percent from the hours worked during the July 2018 reference week.

The 2019 all hired worker annual average gross wage rate was $14.91 per hour, up 5 percent from the 2018 annual average gross wage rate. The 2019 field worker annual average gross wage rate was $14.11 per hour, up 6 percent from the 2018 annual average. The 2019 livestock worker annual average gross wage rate was $13.74 per hour. The 2019 annual average combined gross wage for field and livestock workers was $13.99, up 6 percent from the 2018 annual average of $13.25 per hour.

Hired Workers and Wage Rates – Lake Region[1] and United States: 2018-2019

		Lake Region			United States		
		October 2018	July 2019	October 2019	October 2018	July 2019	October 2019
Hired workers on farms	(1,000 workers)	66	66	68	784	802	809
Hours worked by hired workers	(hours per week)	37.8	40.5	41.0	41.5	41.7	42.5
Wage rate [2]							
Field and livestock combined	(dollars per hour)	14.60	14.40	15.00	13.64	14.08	14.21
Field	(dollars per hour)	14.81	14.39	15.57	13.74	14.19	14.38
Livestock	(dollars per hour)	14.39	14.41	14.58	13.38	13.79	13.77
All hired workers	(dollars per hour)	15.14	15.05	15.64	14.47	14.91	15.02

1. Lake Region includes Michigan, Minnesota, and Wisconsin. 2. Benefits, such as housing and meals, are provided to some workers but the values are not included in the wage rates.

2017 CENSUS OF AGRICULTURE
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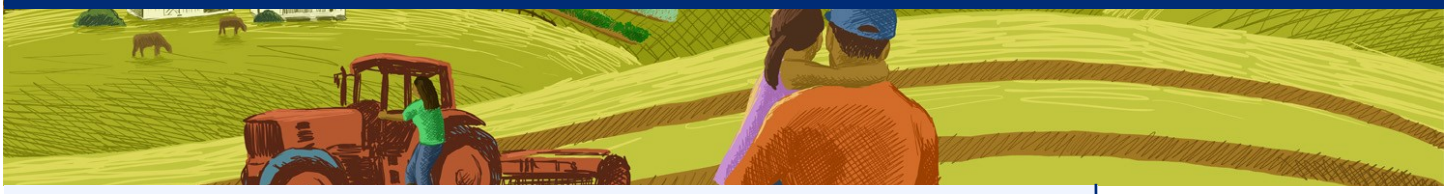
Wisconsin Irrigation and Water Management

Results from the 2018 Irrigation and Water Management Survey



In 2018, U.S. farms irrigated 55.9 million acres with 83.4 million acre-feet of water. The number of farms irrigating and the amount of land irrigated increased slightly between 2013 and 2018, while the total amount of water used for irrigation declined. Irrigation needs vary depending on weather and the commodities grown. Five states accounted for about half of irrigated acres and water applied. Wells provided half of the water used for irrigation, and sprinkler systems were the most widely used distribution method.

231,474
irrigating farms
55.9 million
irrigated acres
83.4 million
acre-feet of water

Number and Location

In 2018, there were 231,474 farms in the United States that irrigated at some point during the year, an increase of 2,237 farms since 2013. They irrigated 55.9 million acres (about one-fourth of their farmland), applying 83.4 million acre-feet of water, a decrease of 5.8 percent from 2013. The average amount of water applied per acre was 1.5 acre-feet, down from 1.6 in 2013.

Five states – California, Nebraska, Arkansas, Texas, and Idaho – together accounted for 50 percent of U.S. irrigated acres in 2018 and 56 percent of total irrigation water applied.

Irrigation provides water to fields in the open and to commodities grown under protection in greenhouses or other structures. Acres in the open accounted for nearly all irrigated acres in 2018.

The 2018 Irrigation and Water Management Survey collected detailed data on irrigation methods and water use on U.S. farms, ranches, and horticultural operations.

U.S. Farms that Irrigated: 2013 and 2018

	2013	2018	% change
Number of farms	229,237	231,474	1.0
Land in farms (acres)	214 mil	222 mil	3.8
Irrigated acres	55.3 mil	55.9 mil	1.1
Acre-feet applied			
U.S. total	88.5 mil	83.4 mil	-5.8
Average per acre	1.6	1.5	

The total amount of water applied declined 5.8 percent between 2013 and 2018.

Irrigated Acreage and Water Use – Selected States: 2018

Irrigated Acres	million	Water Applied (acre-feet)	million	avg per acre
California	8.40	California	24.5	2.9
Nebraska	7.67	Idaho	6.61	1.9
Arkansas	4.25	Texas	5.35	1.3
Texas	4.09	Arkansas	5.07	1.2
Idaho	3.39	Nebraska	4.86	0.6
Minnesota	0.55	Wisconsin	0.29	0.6
Wisconsin	0.52	Minnesota	0.25	0.4
Iowa	0.17	Iowa	0.06	0.4
U.S. Total	**55.9**	**U.S. Total**	**83.4**	**1.5**

California applied the largest total amount of irrigation water, 24.5 million acre-feet. Arizona applied the most water per acre, an average of 4.7 acre-feet.

Acre-foot

The amount of water required to cover one acre to a depth of one foot. This is equivalent to 43,560 cubic feet or 325,851 gallons.

Water Sources and Distribution

Wisconsin producers relied on three sources of water for irrigation: ground water from on -farm wells, surface water on the farm, and off-farm water from a variety of sources and suppliers. They relied on sprinkler systems, gravity systems, and a variety of drip, trickle, or other low-flow micro systems to distribute the water to open fields.

Water Sources, Acres in the Open – Wisconsin: 2018

	Irrigated Acres	Acre-feet Applied	
Ground water from wells	475,100	269,659	92%
On-farm surface water	40,832	21,334	7%
Off-farm water	8,431	2,438	1%
Total	518,312 [1]	293,908	100%

[1] Total is less than the sum of individual sources because some irrigated acres have more than one water source, and may not add due to rounding.

Ground water from on-farm wells accounted for 92 percent of irrigation water applied to acres in the open.

Distribution Systems, Acres in the Open – Wisconsin: 2018

	Farms	Irrigated Acres
Sprinkler	1,467	536,698
Gravity	59	244
Drip, trickle, and low-flow micro	499	3,476
Total [1]	1,790	517,394

[1] Total is less than the sum because some farms and acres have more than one distribution system applied and multiple systems of the same type.

In Wisconsin, sprinklers were the most widely used distribution system, covering 536,698 irrigated acres in the open.

5,166 Wells

1,733 Wisconsin farms used 5,166 wells in 2018 for irrigation. The average pumping capacity for all pumped wells was 650 gpm.

Of the wells:

- 34 percent had flow meters to measure the amount of water supplied
- 81 percent had backflow prevention devices to prevent cross contamination

166 feet

The average well depth in 2018. The average depth to water at the beginning of irrigation season was 49 feet.

Irrigation Expenses

Total energy expenses for pumping well and surface water in Wisconsin amounted to $18.1 million.
Infrastructure costs for equipment, facilities, land improvement, and computer technology were $11.6 million. Water purchased from off-farm sources amounted to $288,000.

Equipment Expenses

Wisconsin farmers spent $9,256,000 during 2018 on new or replacement equipment and machinery of which 73% was scheduled replacement or maintenance.

Wisconsin farmers spent $368,000 on new well construction.

Farmers in Wisconsin who irrigated spent $1,778,000 on computers, control panels, and computer controlled valves and hardware for irrigation water management during the survey year.

About the Survey

The 2018 Irrigation and Water Management Survey (IWMS) was conducted with producers who indicated in the 2017 Census of Agriculture that they had irrigated sometime during the past five years. It is the successor to the Farm and Ranch Irrigation Survey.
For more information on the IWMS and the Census of Agriculture, go to:
www.nass.usda.gov/AgCensus

Horticulture Operations

Horticulture operations in Wisconsin irrigate both fields in the open and areas under protection. In 2018, these operations irrigated 11,485 acres in the open. They also irrigated 13.7 million square feet under protection. Some types of horticulture crops, such as sod, are grown almost exclusively in the open.

Top Crops Irrigated by Horticulture Operations – Wisconsin: 2018

In the Open (Acres)		Under Protection (mil sq ft)	
Sod	9,233	Floriculture and bedding	7.76
Nursery crops	1,634	Nursery crops	2.92
Propagative materials	12	Food under protection	2.42
Floriculture and bedding	104	Propagative materials	0.91

(D) Withheld to avoid disclosing data for individual operations.

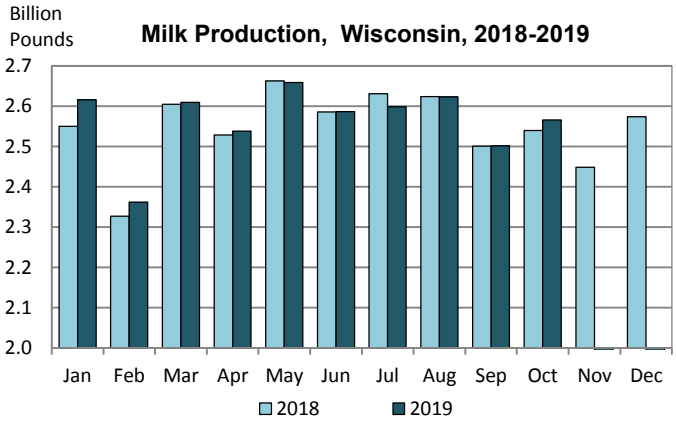
Source: USDA NASS 2018 Irrigation and Water Management Survey (2017 Census of Agriculture).

Milk Production

Milk production in Wisconsin during October 2019 totaled 2.57 billion pounds, up 1 percent from the previous October. The average number of milk cows during October, at 1.27 million head, was the same as last month but down 6,000 from last year. Monthly production per cow averaged 2,025 pounds, up 30 pounds from last October.

Milk production in the 24 major States during October totaled 17.3 billion pounds, up 1.7 percent from October 2018. September revised production, at 16.8 billion pounds, was up 1.7 percent from September 2018. The September revision represented an increase of 7 million pounds or less than 0.1 percent from last month's preliminary production estimate. Production per cow in the 24 major States averaged 1,964 pounds for October, 33 pounds above October 2018. The number of milk cows on farms in the 24 major States was 8.81 million head, 1,000 head less than October 2018, but 5,000 head more than September 2019.

Milk production in the United States during October totaled 18.1 billion pounds, up 1.3 percent from October 2018. Production per cow in the United States averaged 1,941 pounds for October, 33 pounds above October 2018. The number of milk cows on farms in the United States was 9.33 million head, 40,000 head less than October 2018, but 5,000 head more than September 2019.



Milk Cows and Production, Selected States, October 2018 and 2019

State	Milk cows [1]		Milk per cow [2]		Production [2]		
	2018	2019	2018	2019	2018	2019	Change from 2018
	(thousand head)		*(pounds)*		*(million pounds)*		*(percent)*
Arizona	205	194	1,910	1,905	392	370	-5.6
California	1,732	1,727	1,915	1,975	3,317	3,411	2.8
Colorado	178	189	2,165	2,160	385	408	6.0
Florida	118	116	1,440	1,485	170	172	1.2
Georgia	81	80	1,670	1,700	135	136	0.7
Idaho	610	630	2,100	2,080	1,281	1,310	2.3
Illinois	86	83	1,675	1,705	144	142	-1.4
Indiana	182	175	1,870	1,885	340	330	-2.9
Iowa	220	217	2,025	2,035	446	442	-0.9
Kansas	160	163	1,925	1,940	308	316	2.6
Michigan	422	428	2,195	2,230	926	954	3.0
Minnesota	451	447	1,810	1,860	816	831	1.8
New Mexico	327	328	2,015	2,055	659	674	2.3
New York	621	626	1,995	2,015	1,239	1,261	1.8
Ohio	256	252	1,750	1,790	448	451	0.7
Oregon	124	124	1,725	1,735	214	215	0.5
Pennsylvania	515	485	1,665	1,705	857	827	-3.5
South Dakota	121	127	1,885	1,885	228	239	4.8
Texas	540	571	1,935	2,000	1,045	1,142	9.3
Utah	100	98	1,935	1,945	194	191	-1.5
Vermont	126	125	1,760	1,785	222	223	0.5
Virginia	80	73	1,595	1,625	128	119	-7.0
Washington	279	281	2,045	2,025	571	569	-0.4
Wisconsin	**1,273**	**1,267**	**1,995**	**2,025**	**2,540**	**2,566**	**1.0**
24-State Total	8,807	8,806	1,931	1,964	17,005	17,299	1.7

[1]Includes dry cows. Excludes heifers not yet fresh. [2]Excludes milk sucked by calves.

The *Wisconsin Farm Reporter* has been made possible through the cooperative efforts of the U.S. Department of Agriculture, National Agricultural Statistics Service and the Wisconsin Department of Agriculture, Trade, and Consumer Protection.

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